

Citation

Johnson, S.J. and K.A. Berkley. 1999. Restoring river otters in Indiana. Wildlife Society Bulletin 27(2):419-427.

Abstract

Indigenous populations of the North America river otter (*Lontra canadensis*) were extirpated from Indiana by 1942. To initiate a statewide restoration program, 25 otters (15M:10F) from Louisiana were released at Muscatatuck National Wildlife Refuge in southern Indiana. We evaluated their post-release survival, movements, and reproductive activity using radiotelemetry with 15 animals (9M:6F), field surveys, and observations for >1year. Cause of death for 4 radiotransmitted otters (2M:2F) and 1 non-radiotransmitted male included collisions with vehicles (n=3), research-related factors (n=1), and unknown causes (n=1). Survival for radiotransmitted otters was 71% during the first year following release. We monitored 14 otters (8M:6F) for 235.1 ± 112.9 days and obtained 1,218 radio locations ($\bar{x}=87.0$ /otter; range 24-144). Adaptive kernel home ranges averaged 35.1 (SD=26.4), 10.9 (SD=8.0), and 3.0 (SD=2.6) km² for the 95%, 75%, and 50% utilization distributions, respectively. Otters dispersed an average of 2.8 ± 1.5 km, but distance traveled did not differ between sexes. Twelve of 15 otters known to have survived >100 days established 50% core areas on the refuge or adjacent waterways. Extensive intrasexual ($\bar{x}=59\%$ between males; $\bar{x}=36\%$ between females) and intersexual overlap ($\bar{x}=48\%$) of these areas, sightings of otter groups, and concurrent use of common den sites suggest a high degree of post-release interaction among radiotransmitted animals. Recruitment was not confirmed in the first year, but 3 litters were documented in the second reproductive season after release. Data obtained since this study indicate that otters persist in the release area and have expanded to adjacent portions of the watershed.